

Proposed Projects

Energy Conservation Investment Projects (ECIP)

	FY17
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	Health Department Solar 345kW	
	RFP to be released Feb, Installed after re-roof	
	ROI	FY33
	Project Life	25+ years
	Estimated lifetime cost avoidance	\$ 1,779,632
	Estimated lifetime usage avoidance	11.5 Million kWh
	Rebates and other sources	None
Cost	ECIP Funded (97%)	
Cost	Other Funding (3%)	
Cost	Est. Maintenance and Insurance Cost per year with 2.82% increase	
Savings	Net Asset Cost Recovery (Not contributed to ECIP)	
Savings	Net Reinvestment of savings (Contributed to ECIP)	
	Civil Courthouse Solar 97kW	
	RFP to be released as part of re-roof project	
	ROI	FY36
	Project Life	25+ years
	Estimated lifetime cost avoidance	\$ 500,341
	Estimated lifetime usage avoidance	3.2 Million kWh
	Rebates and other sources	None
Cost	ECIP Funded (100%)	
Cost	Other Funding	
Cost	Est. Maintenance and Insurance Cost per year with 2.82% increase	
Savings	Net Asset Cost Recovery (Not contributed to ECIP)	
Savings	Net Reinvestment of savings (Contributed to ECIP)	

FY18	FY18 Prorated	FY19	FY20	FY21	FY22	FY23	FY24	FY25
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0.333

				\$ 692,000				
				\$ 670,120				
				\$ 21,880				
					\$ (3,544)	\$ (3,644)	\$ (3,747)	\$ (3,853)
					\$ (110)	\$ (113)	\$ (116)	\$ (119)
				\$ 52,630	\$ 49,086	\$ 48,986	\$ 48,883	\$ 48,777
				\$ 223,000				
				\$ 223,000				
					1,358	1,396	1,436	1,476
				\$ 14,797	\$ 13,439	\$ 13,401	\$ 13,361	\$ 13,321

Alachua County Government Capital Improvement Program

Project Name: 345 kW Solar PV at Health Department

Project Description/Scope:

In FY20 install 345 kW PV installation at the Alachua County Health Department. Project will be installed immediately after roof work is completed in FY21. Solar provider will coordinate with roofing contractor to preserve the roof warranty. Estimated 13 years. Over 25 years, the system is estimated to offset 11.5 million kWh and over \$1.8 million in utility cost.

Project Location: Health Department Rooftop 224 SE 24th St, Gainesville, FL 32641

Project Cost: \$692,000 \$2.00 per installed watt.

PHASE	Prior Year Actuals	Current	2022	2023	2024	2025	2026	Unfunded
Environmental/Due Diligence								
Architecture/Engineering								
Engineering								
Land Acquisition								
Right-of-Way								
Construction		\$692,000						
Project Support								
Furniture, Fixtures & Eqpt (IT Equipment)								
Art in Public Places								
Contingency								
TOTAL PROJECT COST	\$0	\$692,000	\$0	\$0	\$0	\$0	\$0	\$0

Project Budget:

FUNDING SOURCE	Current	2022	2023	2024	2025	2026
312	\$670,120					
300	\$21,880					
TOTAL PROJECT BUDGET	\$692,000	\$0	\$0	\$0	\$0	\$0

Estimated Operating Expenses	2022	2023	2024	2025	2026
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	\$3,654	\$3,757	\$3,863	\$3,972	\$4,084
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Energy Conservation Investment Project

Yes

Project will avoid \$52,630 in cost per year and 465,750 year. There are no rebates available for this proj

Health Dept Solar Est

	Estimated Productivity (1)	Savings Per kWh (2)	Energy Value (3)	Estimated Maintenance (4)	Estimated Insurance (5)
Year					
1	0	\$0.11	\$0	-\$2,349	-\$1,305
2	0	\$0.12	\$0	-\$2,419	-\$1,338
3	0	\$0.12	\$0	-\$2,492	-\$1,371
4	0	\$0.12	\$0	-\$2,567	-\$1,405
5	0	\$0.13	\$0	-\$2,644	-\$1,440
6	0	\$0.13	\$0	-\$2,723	-\$1,476
7	0	\$0.13	\$0	-\$2,805	-\$1,513
8	0	\$0.13	\$0	-\$2,889	-\$1,551
9	0	\$0.14	\$0	-\$2,976	-\$1,590
10	0	\$0.14	\$0	-\$3,065	-\$1,630
11	0	\$0.15	\$0	-\$3,157	-\$1,671
12	0	\$0.15	\$0	-\$3,252	-\$1,712
13	0	\$0.15	\$0	-\$3,349	-\$1,755
14	0	\$0.16	\$0	-\$3,450	-\$1,799
15	0	\$0.16	\$0	-\$3,553	-\$1,844
16	0	\$0.16	\$0	-\$3,660	-\$1,890
17	0	\$0.17	\$0	-\$3,769	-\$1,937
18	0	\$0.17	\$0	-\$3,883	-\$1,986
19	0	\$0.18	\$0	-\$3,999	-\$2,035
20	0	\$0.18	\$0	-\$4,119	-\$2,086
21	0	\$0.19	\$0	-\$4,243	-\$2,138
22	0	\$0.19	\$0	-\$4,370	-\$2,192
23	0	\$0.20	\$0	-\$4,501	-\$2,247
24	0	\$0.20	\$0	-\$4,636	-\$2,303
25	0	\$0.20	\$0	-\$4,775	-\$2,360
	0 kWh		\$0	-\$85,643	-\$44,576

(1)

(2)

PV Watts at 95% site efficiency, 0.80 derate factor, and 0.005 annual degradation.

Electricity is priced at an assumed rate of \$0.113/kWh increasing at 4% per year.

LCOE (9)

\$0.081/kWh

(3) Energy Savings \$ = Estimated Productivity x Savings per kWh.

(4) Insurance is estimated at \$5.00/kW per year increasing at 2.5% per year.

(5) Maintenance cost is estimated at \$9/kW increasing at 3% per year.

(6) Total initial investment payment and tax credits.

(7) Net Project Value Per Year = sum of columns 3 to 6.

(8) Total Value of Project = running total of Net Project Value Per Year.

(9) Levelized cost of energy = total expenses / total energy production.

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ted ROI in

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TOTAL
\$0
\$0
\$0
\$0
\$0
\$692,000
\$0
\$0
\$0
\$0
\$692,000

TOTAL
\$670,120
\$21,880
\$0
\$0
\$692,000

TOTAL

\$15,676

1 kWh per
ect.

		Internal
Initial Equity (6)	Net Value Year (7)	Total Project (8)
-\$692,000	-\$695,654	-\$695,654
	-\$3,757	-\$699,411
	-\$3,863	-\$703,274
	-\$3,972	-\$707,246
	-\$4,084	-\$711,331
	-\$4,200	-\$715,530
	-\$4,318	-\$719,849
	-\$4,440	-\$724,289
	-\$4,566	-\$728,854
	-\$4,695	-\$733,549
	-\$4,827	-\$738,376
	-\$4,964	-\$743,340
	-\$5,104	-\$748,444
	-\$5,249	-\$753,693
	-\$5,397	-\$759,090
	-\$5,550	-\$764,640
	-\$5,707	-\$770,346
	-\$5,868	-\$776,215
	-\$6,034	-\$782,249
	-\$6,205	-\$788,454
	-\$6,381	-\$794,835
	-\$6,562	-\$801,397
	-\$6,748	-\$808,145
	-\$6,939	-\$815,083
	-\$7,135	-\$822,219

-\$692,000

44

45

Alachua County Government Capital Improvement Program

Project Name: 97 kW Civil Courthouse Solar Installation

Project Description/Scope:

97 kW roof-mounted, grid tied solar photovoltaic installation at the Civil Courthouse. Project scope included in re-roof RFP as coordinated by Facilities. Anticipate \$30k mobilization savings (crane/hoist cost) by running the project in parallel with the roof work. Estimated ROI in 15 years. Over 25 years, the system is estimated to offset 3.2 million kWh and over \$500,000 in utility cost.

Project Location: Civil Courthouse roof top, 201 E University Ave, Gainesville, FL 32601

Project Cost: \$222,713 \$2.30 per watt

PHASE	Prior Year Actuals	Current	2022	2023	2024	2025	2026	Unfunded	TOTAL
Environmental/Due									\$0
Architecture/Engineering									\$0
Engineering									\$0
Land Acquisition									\$0
Right-of-Way									\$0
Construction		\$223,000							\$223,000
Project Support									\$0
Furniture, Fixtures & Eqpt (IT Equipment)									\$0
Art in Public Places									\$0
Contingency									\$0
TOTAL PROJECT COST		\$223,000	\$0	\$0	\$0	\$0	\$0	\$0	\$223,000

Project Budget: \$222,713

FUNDING SOURCE	Current	2022	2023	2024	2025	2026	TOTAL
312	\$223,000						\$223,000
							\$0
							\$0
							\$0
TOTAL PROJECT BUDGET	\$223,000	\$0	\$0	\$0	\$0	\$0	\$223,000

Estimated Operating Expenses	2022	2023	2024	2025	2026	TOTAL
Maintenance and Insurance	\$1,358	\$1,396	\$1,436	\$1,476	\$1,518	\$7,184

Energy Conservation Investment Project Project will avoid \$14,797 in cost per year and 130,945 kWh per year. There are no rebates available for this project.

Civil Court House Solar Est 97 kW Solar System								Internal
Year	Estimated Productivity (1)	Savings Per kWh (2)	Energy Value (3)	Estimated Maintenance (4)	Estimated Insurance (5)	Initial Equity (6)	Net Value Year (7)	Net Total Project (8)
1	130,945	\$0.11	\$14,797	-\$873	-\$485	-\$223,000	-\$209,561	-\$209,561
2	130,840	\$0.12	\$15,177	-\$899	-\$497		\$13,781	-\$195,780
3	130,734	\$0.12	\$15,557	-\$926	-\$510		\$14,122	-\$181,658
4	130,629	\$0.12	\$15,937	-\$954	-\$522		\$14,460	-\$167,198
5	130,524	\$0.13	\$16,315	-\$983	-\$535		\$14,798	-\$152,400
6	130,419	\$0.13	\$16,694	-\$1,012	-\$549		\$15,133	-\$137,268
7	130,314	\$0.13	\$17,071	-\$1,042	-\$562		\$15,466	-\$121,801
8	130,209	\$0.13	\$17,448	-\$1,074	-\$577		\$15,798	-\$106,004
9	130,104	\$0.14	\$17,954	-\$1,106	-\$591		\$16,258	-\$89,746
10	129,999	\$0.14	\$18,330	-\$1,139	-\$606		\$16,585	-\$73,161
11	129,895	\$0.15	\$18,835	-\$1,173	-\$621		\$17,041	-\$56,120
12	129,790	\$0.15	\$19,209	-\$1,208	-\$636		\$17,364	-\$38,756
13	129,686	\$0.15	\$19,712	-\$1,245	-\$652		\$17,815	-\$20,941
14	129,581	\$0.16	\$20,215	-\$1,282	-\$669		\$18,264	-\$2,677
15	129,477	\$0.16	\$20,716	-\$1,320	-\$685		\$18,711	\$16,034
16	129,373	\$0.16	\$21,217	-\$1,360	-\$702		\$19,155	\$35,188
17	129,269	\$0.17	\$21,717	-\$1,401	-\$720		\$19,596	\$54,785
18	129,165	\$0.17	\$22,216	-\$1,443	-\$738		\$20,035	\$74,820
19	129,061	\$0.18	\$22,715	-\$1,486	-\$756		\$20,472	\$95,292
20	128,957	\$0.18	\$23,341	-\$1,531	-\$775		\$21,035	\$116,327
21	128,853	\$0.19	\$23,838	-\$1,577	-\$795		\$21,466	\$137,793
22	128,749	\$0.19	\$24,462	-\$1,624	-\$815		\$22,024	\$159,817
23	128,645	\$0.20	\$25,086	-\$1,673	-\$835		\$22,578	\$182,395
24	128,542	\$0.20	\$25,580	-\$1,723	-\$856		\$23,001	\$205,396
25	128,438	\$0.20	\$26,201	-\$1,775	-\$877		\$23,550	\$228,946
3,242,196 kWh			\$500,341	-\$31,829	-\$16,567	-\$223,000		

- (1)
- (2)
- PV Watts at 95% site efficiency, 0.80 derate factor, and 0.005 annual degradation.
- Electricity is priced at an assumed rate of \$0.113/kWh increasing at 4% per year.
- LCOE (9)**
- \$0.081/kWh**
- (3) Energy Savings \$ = Estimated Productivity x Savings per kWh.
- (4) Insurance is estimated at \$5.00/kW per year increasing at 2.5% per year.
- (5) Maintenance cost is estimated at \$9/kW increasing at 3% per year.
- (6) Total initial investment payment and tax credits.
- (7) Net Project Value Per Year = sum of columns 3 to 6.
- (8) Total Value of Project = running total of Net Project Value Per Year.
- (9) Levelized cost of energy = total expenses / total energy production.